

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

TITLE OF THE INVENTION:

Rotatable Setting Device for Jewelry Articles

INVENTOR:

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FIELD OF THE INVENTION

[0001] This invention relates generally to jewelry articles and, in particular, to a rotatable setting device and method of making same for providing mounted gemstone rotation in jewelry articles such as earrings, necklaces, bracelets, rings, anklets, and the like.

BACKGROUND OF THE INVENTION

[0002] A main function of any conventional or traditional piece of jewelry is to display the gems used for the article of jewelry that is most aesthetically pleasing to the eye of the beholder. This not only relates to artistic technique and talent, but to the gems ability to disperse light through its facets and the angles between them. Dispersed rays of light reflect or refract many times within a well-cut gems. Additionally, the human body plays a large roll in the gems sparkle and dispersion of light and reflection of the actual articles of jewelry worn. This is referred to as the “Rock and Tilt” motion, which is naturally done by the person wearing the article of jewelry, and causes the article of jewelry to change its orientation, which causes light to reflect off the one or more gems.

[0003] Not all gems separate light enough for dispersion to be visible, but diamonds do. Diamond professionals use the term “fire” to describe a diamonds display of dispersion. Fire is defined as the rainbow of colors you see when you move a well proportioned diamond under the correct lighting. Fire results from the arrangement of a diamonds facets and the angles between them. So although every diamond has the same dispersion value, not every diamond shows the same amount of fire. Four factors of the interaction between diamonds and light contribute to the fire you see in the “face-up” view of a diamond.

[0004] First is the angle at which light enters the diamond. As soon as white light enters a diamond, the spectral colors begin to spread and separate. The greater the angle, the greater the refraction. If the angle of incidence is one degree, for example,

the difference between the angles of refraction for violet and red is very small, less than one one-hundredth of a degree, resulting in the preclusion of seeing fire. Alternatively, an interior angle of incidence of 24.5 degrees results in the difference between the angles of refraction for violet and red of approximately half a degree resulting in an increase of fire visibility.

[0005] Second is the number of times a light ray interacts with the diamonds internal facets. Dispersion increases every time light reflects or refracts, which happens many times within a well-cut diamond. The farther the dispersed rays travel in a diamond, the greater the difference between them, and the more visible the spectral colors become.

[0006] Facet junctions also influence fire. If two rays happen to fall on opposite sides of a facet junction as the colors separate, they might wind up taking completely different paths. Then each one contributes to the diamonds fire. The more times this happens, the more fire a diamond will display.

[0007] Finally, there is an angle of the light rays as they exit the diamond. Basically, the smaller the exit angle, the larger the angle of refraction. This means that the colored bands will spread farther apart, creating the appearance of greater fire. Some diamond cuts are designed with increased numbers of crown facets to take advantage of this effect.

[0008] You can only see fire if the dispersed light waves are traveling separately to your eye. This might not always be the case because, just as white light spreads out into colors as it enters the diamond, colored light can recombine into white light as it

exits. Because diamonds are best appreciated face up, cutters direct the greatest display of fire through the gem's crown.

[0009] Thus, for one to truly see how much fire a diamond has requires that one manually rock and tilt it and change its orientation.

[0010] Many gems are precious and expensive, demanding high prices in the market place. Hence, increasing the aesthetic display of any conventional or traditional piece of jewelry comprised of these precious and expensive gems would set it apart from its predecessors, increase its aesthetic enjoyment, its desirability, and its value. Additionally, increasing the aesthetic display of any conventional or traditional piece of jewelry comprised of semi-precious gems, man made gems, or the like would also set it apart from its predecessors, increase its aesthetic enjoyment, its desirability, and its value.

[0011] Hence, there is a need for an apparatus and method for increasing the "fire" and "scintillation" obtained from a gem mounted in any type of jewelry item thereby setting it apart from its predecessors and increasing its aesthetic enjoyment, desirability, and value.

BRIEF SUMMARY OF THE INVENTION

[0012] The present invention is distinguished over the known prior art in a multiplicity of ways. For one thing, one embodiment of the invention provides a rotatable setting device and method of making same for providing mounted gem rotation in a jewelry article thereby increasing its “fire” and “scintillation” as compared with a conventionally still set gem and therefore, setting it apart from its predecessors and increasing its aesthetic enjoyment, desirability, and value. Additionally, one embodiment of the invention provides a rotatable setting device which, on its own, can change orientation and continually produce more sparkle and scintillation from a gem mounted therein and which, increases the “Rock and Tilt” motion of the rotatably mounted gem itself and not the jewelry article that it may be encased in. To an observer, the jewelry article can externally look like any other conventionally or traditionally set piece of jewelry, but with one movement of the item, the rotatably mounted gem comes alive with automatic rotational movement causing the gem to produce more fire (display of dispersion) than still set jewelry.

[0013] In one embodiment of the invention, a rotating jewelry setting device for a jewelry article is provided which is comprised in combination of: a casing having an encompassing sidewall defining a hollow casing interior, the sidewall having an upper peripheral end transitioning into a top with an opening therein leading to the hollow casing interior and the sidewall further including a bottom peripheral edge defining an opened bottom end in open communication with the hollow casing interior; a rotating gem retaining means at least partially received within the hollow interior of the casing

and including an upper portion for securely retaining a gem having a pavilion and a crown with its crown being visible through the opening of the top of the casing; the rotating gem retaining means further including a lower portion comprised of an elongated member having an upper end operatively coupled to a bottom of the upper portion of the gem retaining means and axially extending away from the gem retaining means and terminating into a tapered lower end; a plurality of radially extending protrusions operatively coupled to the gem retaining means at a location proximate a bottom surface of the top of the casing; a bottom member operatively coupled across the opened bottom end of the casing and having an upper surface with a notch formed therein for rotatably receiving the tapered tip of the elongated member therein and for rotatably biasing the plurality of radially extending protrusions with the bottom surface of the top of the casing for rotatably setting the gem retaining means and gem for providing gem rotation visible through the opening in the top of the casing and in response to movement by a wearer of an article of jewelry comprised of the rotatable setting device.

[0014] In another embodiment of the invention, a rotatable setting device for an article of jewelry is provided which is comprised in combination of: a rotating gem retaining means comprised of a base, a plurality of spaced apart prongs members connected to and upwardly extending away from the base for securely retaining a gem having a pavilion and a crown; the rotating gem retaining means further comprised of an elongated member connected to and downwardly extending away from the base and terminating into a tapered lower tip; a casing having an encompassing sidewall

circumscribing the rotating gem retaining means and defining a hollow casing interior, the sidewall having an upper peripheral end transitioning into a top with an opening therein leading to the hollow casing interior such that the crown of the gem is visible through the opening of the top of the casing and the sidewall further including a bottom peripheral edge defining an opened bottom end in open communication with the hollow casing interior; a plurality of protrusions operatively coupled to the plurality of spaced apart prong members and axially extending away from the plurality of spaced apart prong members at a location proximate a bottom surface of the top of the casing; the plurality of spaced apart prong members including at least one pair of substantially diametrically opposed prong members comprised of a first prong member and a second prong member; a pair of weighted members including a first weighted member operatively coupled to the first prong member and a second weighted member operatively coupled to the second prong member for defining a pair of diametrically opposed weighted members; a bottom member operatively coupled across the opened bottom end of the casing and having an upper surface with a notch formed therein for rotatably receiving the tapered tip of the elongated member therein and for rotatably biasing the plurality of protrusions against the bottom surface of the top of the casing for rotatably setting the rotating gem retaining means and gem for working in combination with gravity acting on the pair of diametrically opposed weighted members and movement by a wearer of a jewelry article comprised of the rotatable setting device for providing gem rotation visible through the opening in the top of the casing.

[0015] In another embodiment of the invention, a method for making a rotatable setting device for a jewelry article is provided, the steps including: providing a hollow casing having an encompassing sidewall defining a hollow casing interior, the sidewall having an upper peripheral end transitioning into a top with an opening therein leading to the hollow casing interior and the sidewall further including a bottom peripheral edge defining an opened bottom end in open communication with the hollow casing interior; providing a rotating gem retaining means comprised of a base, a plurality of spaced apart prongs members upwardly extending away from the base for securely retaining a gem having a pavilion and a crown, and an elongated member downwardly extending away from the base and terminating into a tapered lower tip; inserting the rotating gem retaining means through the opening in the top of the casing and positioning at least a portion of the rotating gem retaining means within the interior of the casing such that upper portions of the plurality of prong members protrude through the opening in the top of the casing to an exterior of the casing; retaining the positioning and marking each of the plurality of spaced apart prong members to which a protrusion is to be attached at a location directly underneath an under side of the top of the casing proximate the opening in the top and then removing the rotating gem retaining means from the casing; coupling a protrusion to each marked prong at approximately each marked location; coupling at least one weighted member to at least one of the plurality of the prong members below each coupled protrusion; inserting the rotating gem retaining means through the opened bottom end and into the hollow casing interior such that the upper portions of

the plurality of prong members protrude through the opening in the top of the casing to the exterior of the casing; providing a bottom member having an upper surface with a notch formed therein for rotatable receiving the tapered tip of the elongated member therein; coupling the bottom member across the opened bottom end of the casing making sure that the tapered tip of the elongated member is rotatably received within the notch of the bottom member and that each coupled protrusion is spaced from the under side of the top of the casing proximate the opening for rotatable setting the gem retaining means and gem for providing gem rotation in response to gravity on at least the weighted means and movement of an article of jewelry comprised of the rotatable setting device 10 by the wearer for providing gem rotation visible through the opening in the top of the casing.

[0016] These embodiments, among other things, demonstrate industrial applicability of this invention.

[0017] Moreover, having thus summarized the invention, it should be apparent that numerous modifications and adaptations may be resorted to without departing from the scope and fair meaning of the present invention as set forth hereinbelow by the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] Figure 1 is a magnified partial sectional view of a rotatable setting device for jewelry articles for providing mounted gem rotation.

[0019] Figure 2 is a magnified partial exploded parts view of the rotatable setting device for jewelry articles for providing mounted gem rotation.

[0020] Figure 3 is a magnified sectional view of a casing shown in figures 1 and 2.

[0021] Figure 4 is a top plan view of the rotatable setting device for jewelry articles for providing mounted gem rotation.

[0022] Figure 5 is a top plan view of a plurality of rotatable setting devices pivotally interlinked to form a necklace jewelry article.

[0023] Figure 6 is a top plan view of the rotatable setting device connected to a ring band to form a ring jewelry article.

[0024] Figure 7 is a side perspective view of an alternative protrusion.

[0025] Figure 8 is a side perspective view of an alternative tapered casing.

DETAILED DESCRIPTION OF THE INVENTION

[0026] Considering the drawings, wherein like reference numerals denote like parts throughout the various drawing figures, reference numeral 10 is directed to a rotatable setting device for providing mounted gem 12 rotation in jewelry articles such as earrings, necklaces, bracelets, rings, anklets, and the like.

[0027] In its essence, and referring to the drawings, an embodiment of the invention provides a rotatable setting device 10 comprised of a rotatable gem retaining means 20 having an upper gem retaining means 22 retaining at least one gem 12 and including at least one radially extending protrusion 60 rotatably or loosely biased against an underside 94 of a top 88 of a shell or casing 80 and a lower means 42 comprised of an elongated member 44 extending from a bottom 26 of the upper gem retaining means 22 and terminating into a tapered end 48 having a tip 50 rotateably received within bottom member 110 coupled across a bottom end 102 of the casing 80, and at least one weighted means or element 70 operatively coupled to the rotatable gem retaining means 20 such that the rotatable setting device 10 transforms forces including gravitational forces acting on at least the one weighted means or element 70 and movement of a jewelry article comprised of the rotatable setting device 10 into rotation of at least one gem 12 viewable through a top opening 90 in the casing 80 thereby giving one or more gems 12 the ability to produce more fire and scintillation thereby setting jewelry articles comprised of the rotatable setting device 10 apart from their predecessors and increasing their aesthetic enjoyment, desirability, and value.

[0028] Specifically, and referring to figures 1 and 2, an embodiment of the invention provides a rotatable setting device 10 for jewelry articles comprised of a rotating gem retaining means or element 20 having an upper gem retaining means or portion 22 and a lower means or portion 42 comprised of an elongated member 44 axially extending away from a bottom end 26 of the upper gem retaining portion 22 and transitioning into a tapered lower end 48 terminating to a tip or point 50. The upper gem retaining portion 22 is employed for securely retaining, for example, a gem 12 having a crown 14, a girdle 16, and a pavilion 18. Additionally, the upper gem retaining portion 22 includes protrusions 60 that are connected to and which radially outwardly extend from the upper gem retaining portion 22. Furthermore, the upper gem retaining portion 22 includes at least one weighted member operatively coupled to the upper gem retaining portion 22 at a location below the protrusions. Moreover, device 10 is further comprised of a shell or casing 80 circumscribing the rotating gem retaining means 20 and having a top 88 with an opening 90 for viewing at least the crown 14 of the gem 12 retained in the upper gem retaining portion 22 and a bottom member 110 operatively coupled to an opened bottom end 102 (please see figure 3) of the casing 80 for rotatably receiving the tapered end 48 and/or tip 50 of the lower portion 42 of the rotating gem retaining means 20 and for rotatably or loosely coupling the protrusions 60 to the bottom surface 94 of the top 88 of the casing 80 for providing gem 12 rotation viewable through a top opening 90 in the casing 80 and as a function of forces including gravitational forces acting on at least the one weighted means or element 70 and movement by a wearer of a jewelry article comprised of the

rotatable setting device 10 thereby giving one or more gems 12 the ability to produce more fire and scintillation thereby setting jewelry articles comprised of the rotatable setting device 10 apart from their predecessors and increasing their aesthetic enjoyment, desirability, and value.

[0029] In one aspect, and referring to figures 4 and 5, a plurality of rotatable setting devices 10 can be pivotally or hingedly connected via fastening means coupled to an exterior of the casings of the devices 10 and comprised of, for example, a first extension member 120 and a pair of spaced apart extensions members 122 all coupled to an exterior of the casings of the devices 10 such that the first extension member 120 of one casing can be placed between the pair of spaced apart extensions members 122 of another casing and be pivotally or hingedly held thereto via a pin 124 extending through both members 120, 122. This coupling method can be repeated for sequentially coupling devices 10 together for forming a straight line or an arcuate path of devices 10 to form necklaces, bracelets, anklets, and other like jewelry articles 130.

[0030] In another aspect, and referring to figure 6, one or more rotatable setting devices 10 can be operatively coupled to a ring band 142 for forming a ring jewelry article 140 comprised of the rotatable setting devices 10. In another aspect, one or more rotatable setting devices 10 can be used to form earrings.

[0031] More specifically, and referring to one embodiment illustrated in figures 1 and 2, the upper gem retaining means or portion 22 of the rotating gem retaining means or element 20 is comprised of a base member 24 having a bottom or underside 26 and a plurality of prong members 28 defining a prong setting, the base member 24

defines a central region with a central axis 40 running therethrough and the prong members 28 include spaced apart lower ends 30 integrally formed with the base member 24 and upwardly extending from the base member 24 in a spaced apart relationship with respect to one another and at an angle with respect to the central axis 40 of the base member 24. The plurality of prong members 28 terminate into radiused upper ends 32 such that the plurality of prong members are arranged about the central axis 40 to correspond with gem shape. Each of the plurality of prong members 28 includes a notch 34 located on an interior side 36 of the upper ends 32 of the plurality of prong members 28 for operatively mating with the gem 12 proximate the girdle 16 for providing secure gem 12 retention. Each of the plurality of prong members 28 further includes an exterior side 38.

[0032] In one form, the plurality of prong members 28 include at least one pair of substantially diametrically opposed prong members 28 having a first prong member substantially diametrically opposed to a second prong member. Six prong members 28 with there pairs of substantially diametrically opposed prong members are illustrated in the drawings with an understanding that the number of prong members 26 can be increased or decreased, depending upon the shape of the gem 12. Additionally, the prong members 26 can be complementally arranged about the base 24 to form to the shape of the gem 12.

[0033] Additionally, and still referring to one embodiment illustrated in figures 1 and 2, the lower means or portion 42 of the rotating gem retaining means 20 is comprised of an elongated cylindrical member or spin peg 44 having an upper end 46

integrally formed with the base 24 of the upper portion 22 of the rotating gem retaining means 20 and axially extending away from the underside 26 of the base member 24 along the central axis 40 and transitioning into the tapered lower end 48 terminating to tip or point 50.

[0034] Furthermore, figures 1 and 2 illustrate one embodiment having a plurality of radially extending protrusions 60 operatively coupled to the upper gem retaining portion or means 22 at a location proximate the bottom surface of the top of the casing.

[0035] Specifically, the plurality of protrusions 60 are operatively coupled to the plurality of spaced apart prong members and axially extend away from the plurality of spaced apart prong members toward the casing sidewall 82 at a location proximate the bottom surface 94 of the top 88 of the shell or casing 80 circumscribing the rotating gem retaining means 20. In one embodiment, the plurality of protrusions 60 are soldered to the exterior surface 38 of each prong member 28 at a location proximate a bottom rim surface 96 of a rim or bezel 98 surrounding the top opening 90 of the shell or casing 80.

[0036] The protrusions 60 can come in various shapes typically with radiused exterior surfaces for providing a rotating coupling with the bottom surface of the top of the casing. For example, in one embodiment the protrusions 60 are cylindrically shaped balls. Figure 7 illustrates another embodiment of the protrusions 60 having radially outwardly and axially upwardly extending appendages 62.

[0037] Referring again to figures 1 and 2, the rotatable gem retaining means 20 further includes at least one weighted member or element 70 operatively coupled to the upper gem retaining portion 22 which works in combination with gravity and movement of a jewelry article comprised of the device 10 by the wearer for providing gem 12 rotation visible through the top opening 90 of the casing 80 comprised of the sidewall 80 which can be formed to hide or reveal the inner workings of the device 10. Additionally, the sidewall can be formed to have windows therein to pass light to the hollow interior 84 (figure 3) of the casing 80 which can then be dispersed by the rotating gem 12.

[0038] More specifically, and in one embodiment, a pair of weighted members is comprised of a first weighted member 70 operatively coupled to a first prong member 28 and a second weighted member 70 operatively coupled to a second prong member 28 as illustrated in figures 1 and 2 for defining a pair of substantially diametrically opposed weighted members working in combination with gravity and movement of an article of jewelry comprised of the device 10 by the wearer for providing gem 12 rotation visible through the opening 90 in the top 88 of the casing 80.

[0039] Hence, positioning or movement of a wearer of the device 10 causes one or the other weighted member of the pair of substantially diametrically opposed weighted members to have a greater gravitational force acting thereon resulting in unequal forces which cause the gem to rotate about double ended arrow 52 (figure 1) until a state of equilibrium is reached. In other words, one weighted member fights the other to bring about gem rotation automatically. Additionally, in one

embodiment, one of the pair of weighted members will want to be on the bottom and one of the pair of weighted members will want to be on the top or in other words, one of the pair of weighted members will want to be at a lower elevation than the other thereby causing a fighting action. In general, the pair of weighted members 70 can be referred to as gravitational fight members or beads and the rotatable setting device 10 can be referred to as a gravitational rotating setting device 10.

[0040] Furthermore, and for example, in one embodiment the weighted member 70 are cylindrically shaped balls soldered to an exterior surface 38 of diametrically opposing prongs 28 at a location which, for example, can be approximately midway between the lower and upper ends 30, 32 respectively.

[0041] Referring now to figures 1 through 3, the shell or casing 80 is comprised of an encompassing sidewall 82 defining a hollow shell or casing interior 84, the sidewall having an upper peripheral edge or end 86 transitioning into a top 88 with a top opening 90 disposed therein and leading to the hollow casing interior 84. The top includes a top surface 92 which can be decorative with, for example, integrally formed decorative markings as shown in figures 4, 5, and 6. The top further includes a bottom surface 94 having an integral interior rim 96 surrounding the top opening 90 and including a bottom rim surface 97. The bottom surface of the casing at the location of the rim defines a raceway to which the protrusions are loosely or rotatably coupled. Additionally, the bottom surface of the casing at the rim can extend upwardly forming a curved protrusion 98 circumscribing the top opening 90 of the casing 80.

[0042] The top opening 90 is preferably centrally disposed in the top 88 of the casing 80. Additionally, the sidewall 82 is further comprised of a bottom peripheral edge or end 100 defining an opened bottom end 102 in open communication with the hollow casing interior 84. In the illustrated embodiment shown in figures 1 through 3, the sidewall is cylindrically shaped with a substantially constant cross section. However, various shapes and sizes with various cross sections can be employed for the casing 80. For example, figure 7 illustrates an embodiment with the sidewall 82 of the casing 80 tapering from top to bottom providing a casing 180 having a top casing diameter that is larger than a bottom casing diameter. Additionally, the casing 80, 180 can further include at least one opening or window 182 extending through the sidewall 82 as illustrated on the casing 182 in figure 7 for allowing light to pass into the hollow interior 84 of the shell or casing 80, 180.

[0043] Referring to figures 1 and 2, the bottom member 110 is operatively coupled across the opened bottom end 102 of the casing and includes an upper surface 112 with a notch 114 formed therein for rotatably receiving the tapered end 48 and/or tip 50 of the elongated member 44 therein and for rotatably biasing the plurality of radially extending protrusions 60 with the bottom surface 94 or raceway 97 of the top 88 of the casing 80 for rotatably setting the rotatable gem retaining means 20 and gem 12 for providing gem rotation visible through the top opening 90 of the casing 80 and in response to gravity and movement by the wearer.

[0044] More specifically, and in one embodiment, the bottom member 110 is comprised of an at least one elongated bar having a substantially uniform square or

flat cross section and having first and second ends 116, 118. The bottom member 110 is operatively coupled across the opened bottom end 102 of the casing via connection such as soldering of the bottom member 110 to the bottom peripheral edge 100 or to an interior 104 of the sidewall 82 proximate the bottom peripheral edge 100 such that light can shine through the pavilion of the gem 12 via the opened bottom end 102 of the casing 80 for dispersion viewing through the crown 14 and wherein the elongated bar 110 includes the notch 114 formed therein for rotatably receiving the tapered end 48 and/or tip 50 of the elongated member 44 therein and for rotatably biasing the plurality of radially extending protrusions 60 with the bottom surface 94 or raceway 97 of the top 88 of the casing 80 for rotatably setting the rotatable gem retaining means 20 and gem 12 for providing gem rotation visible through the top opening 90 of the casing 80 and in response to a combination of gravity acting on at least one weighted member 70 and preferably the pair of diametrically opposed weighted members 70 shown in figures 1 and 2 and movement of the rotatable setting device 10 by a wearer. Thus, the gem 12 rotates within and relative to the casing 80.

[0045] In one embodiment, one method for making the rotatable setting device 10 for jewelry includes the steps of: providing a hollow casing 80 having an encompassing sidewall 82 defining a hollow casing interior 84, the sidewall 82 having an upper peripheral end 86 transitioning into a top 88 with an opening 90 therein leading to the hollow casing interior 84 and the sidewall 82 further including a bottom peripheral edge 100 defining an opened bottom end 102 in open communication with the hollow casing interior 84; providing a rotating gem retaining

means 20 comprised of a base 24, a plurality of spaced apart prongs members 28 upwardly extending away from the base 24 for securely retaining a gem 12 having a pavilion 18 and a crown 14, and an elongated member 44 downwardly extending away from the base 24 and terminating into a tapered lower tip 50; inserting the rotating gem retaining means 20 through the opening 90 in the top 88 of the casing 80 and positioning at least a portion of the rotating gem retaining means 20 within the interior of the casing such that upper portions 32 of the plurality of prong members protrude through the opening 90 in the top of the casing 80 to an exterior of the casing 80; retaining the positioning and marking each of the plurality of spaced apart prongs members 28 to which a protrusion is to be attached at a location directly underneath an under side 94 of the top 88 of the casing 80 proximate the opening 90 and then removing the rotating gem retaining means 20 from the casing 80; coupling at least one protrusion 60 to each marked prong approximate each marked location; coupling at least one weighted member 70 to at least one of the plurality of the prong members 28 below each coupled protrusion 60; inserting the rotating gem retaining means 20 through the opened bottom end 102 and into the hollow casing interior 84 such that the upper portions 32 of the plurality of prong members 28 protrude through the opening 90 in the top 88 of the casing 80 to the exterior of the casing 80; providing a bottom member 110 having an upper surface 112 with a notch 114 formed therein for rotatably receiving the tapered tip 50 of the elongated member 44 therein; coupling the bottom member 110 across the opened bottom end 102 of the casing 80 making sure that the tapered tip 50 of the elongated member 44 is rotatably received within

the notch 114 of the bottom member and that each coupled protrusion 60 is spaced from the under side 94 of the top 88 of the casing 80 proximate the opening 90 for rotatably setting the rotatable gem retaining means 20 and gem 12 for providing gem 12 rotation in response to gravity and movement of the jewelry article by a wearer.

[0046] In one embodiment, the above method for making the rotatable setting device 10 includes the step of includes the step of coupling a pair of weighted members including a first weighted member operatively coupled to one of the plurality of prong members and a second weighted member operatively coupled to another substantially diametrically opposed prong member for defining a pair of substantially diametrically opposed weighted members working in combination with gravity and movement of the jewelry article by the wearer for providing gem rotation visible through the opening in the top of the casing.

[0047] In use and operation, and referring to the drawings, one embodiment of the invention provides a rotatable setting device 10 for a jewelry article comprised of the shell or casing 80 having the encompassing sidewall 82 circumscribing the rotating gem retaining means 20 such that the crown 14 of the gem 12 such as a diamond is visible through the top opening 90 of the casing 80 and further comprised of the bottom elongated bar member 110 operatively coupled across the opened bottom end 102 of the casing 80 and including the notch 114 formed therein for rotatably receiving the tapered tip 50 of the elongated member 44 of the rotating gem retaining means 20 therein and for rotatably biasing the plurality of protrusions 60 against the bottom rim surface 97 of the rim 96 of the casing 80 such that the protrusions 60 are

rotatably biased with the bottom rim surface 97 of the casing 80 against which the protrusions ride or bump during gem 12 rotation due to at least one weighted member, and preferably a pair of substantially diametrically opposed weighted members working in combination with gravity and movement of an article of jewelry comprised of the rotatable setting device 10 by the wearer for providing gem 12 rotation visible through the opening 90 in the top of the casing 80. Additionally, articles of jewelry comprised of the device 10 will automatically change orientation to continuously produce fire without the manual help of the wearer to create the “rock and tilt” needed to produce the flames of fire. The device 10 will separate two otherwise identical jewelry designs, set with identical color and clarity diamonds, into two categories. A first design will have the normal fire and scintillation based on the cut of the diamonds and the other design, employing the rotatable setting device 10, will have substantial improvement of the fire and scintillation over the first design from the automatic movement of the rotating diamond creating more flames of fire off facets of the diamond. Thus, jewelry articles comprised of at least one rotatable setting device 10 will far surpass jewelry articles void of the rotatable setting device 10 in the spotlight of attention getting.

[0048] Moreover, having thus described the present invention, it should be apparent that numerous modifications and adaptations may be resorted to without departing from the scope and fair meaning of the present invention as set forth hereinabove and as described hereinbelow by the claims.